

4172

GERMAN RESEARCH SATELLITE  
EI 92 PROTON DATA  
GRS 625/A1 - AZUR  
(69-097A-03A)

2 of 2

## GRS-A

PROTON + ALPHA COUNT RATES, TAPE

69-097A-03A

This data set has been restored. There were originally two 7-track, 800 BPI tapes written in Binary. There is one restored tape. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tapes were created on a 3400 computer and the restored tapes were created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D numbers are as follows:

DR#	DS#	D#	FILES	TIME SPAN
DR005512	DS005512	D008549 D008550	1 2	11/10/69 - 06/28/70 11/10/69 - 06/28/70

• 10 • 11

• 100 •

$$(\psi(t) - \psi_0)^T A (\psi(t) - \psi_0) \Bigg\}^{\frac{1}{2}}$$

74.

this data set consists of ~~three~~ tapes. These tapes are CPC3400, 800 RPT, binary, 7-track with offfile per tape. The first tape (D-8549) has no end of file at the end of tape and it has to be processed as having 5119 records on the tape. Tape two (D-8550) has a normal end of file. Tape three (300 ft. tape) (C-6316) was the output of a merge of tape one and two.

INSTITUT FÜR REINE UND ANGEWANDTE KERNPHYSIK  
DER CHRISTIAN-ALBRECHTS-UNIVERSITÄT KIEL

EI 92 PROTON DATA

(SATELLITE GRS 625/A1-AZUR)

Contents:

Experiment EI 92  
IT-Format  
IT-Tape

Description

Satellite and Orbit

The German Research Satellite AZUR was launched Nov. 8, 1969 into a nearly polar orbit of  $103^{\circ}$  inclination with initial apogee altitude of 3145 km and perigee altitude of 384 km and an orbital period of 122 minutes.

The orbit cuts through the entire range of magnetic shells at invariant radial distances between 1.0 and  $1.55 R_E$ . The orbital plane is nearly sun-synchronous and lies in the dawn-dusk plane of the earth.

The satellite is magnetically aligned to the earth's magnetic field lines. The active life time of AZUR lasted from Nov. 8, 1969 until June 29, 1970.

Experiment EI 92

The solid state telescope EI 92 onboard the satellite AZUR consists of two totally depleted silicon surface barrier detectors of equal size, 34 microns thick and 7 mm in diameter. Four energy threshold discriminators for detector 1 and one energy threshold for detector 2, set to the same level as the lowest threshold of detector 1, define in combination with anticoincidence conditions six experimental channels whose characteristics are given in the table below.

Detector 2 was designed to be on the same size and sensitivity as detector 1 in order to be able to account for contaminating pulses in detector 1 originating from higher energy particles that penetrate the shielding of the detectors.

An acceptance cone for incoming particles is defined by a mechanical collimator with  $20.4^{\circ}$  full opening angle. This collimator contains a permanent magnet keeping electrons with energies up to 500 keV from hitting the detectors.

The geometric factor of the telescope is  $G = 0.0137 \text{ cm}^2 \text{ sr.}$  The axis of the collimator points perpendicular ( $\pm 5^{\circ}$ ) to the local magnetic field vector so that the telescope is receiving particles whose pitch angles are  $90^{\circ} \pm 15^{\circ}$ .

Table of experimental channels

<u>Channel</u>	<u>Particles</u>	<u>Energy Range (MeV)</u>
1	protons	1.65 - 13.5
2	protons	0.25 - 12.5
3	protons	0.25 - 1.65
4	protons	0.50 - 1.65
5	protons	1.0 - 1.65
6	alphas	2.0 - 6.4

The counts in the individual channels are accumulated for a period of 9.875 sec onboard the satellite and transmitted to ground in real-time in 10 sec intervals.

Literature

Keppler, E., "Der Forschungssatellit AZUR", Zeitschrift für Geophysik 36, 457-476, 1970

Moritz, J., "Messung von Strahlungsgürtel-Protonen im Energiebereich 0.25-13.5 MeV mit dem Satelliten AZUR", Zeitschrift für Geophysik 37, 153-178, 1971

Description

Purpose

The IT-Format was designed to organize EI 92 proton data in reference to the earth's magnetic field. Magnetic field parameters used are

$\Lambda$ , invariant latitude  
NOS, northern or southern hemisphere  
 $B$ , magnetic field strength  
MLT, magnetic local time

For this format proton data are summarized according to the invariant latitude in intervals of one degree width. Within each interval data are ordered in time scale. Time overlapping was eliminated in a previous step of data reduction. Proton data of bad quality are skipped. A dense packing of information on the output tape permits an efficacious reduction in tape storage requirement.

Variables

Twelve variables constitute one sample (data set) of proton data. A description of each variables is given in the following list

<u>Variable</u>	<u>Description</u>
INLAT	invariant latitude (deg) (reference field: GSFC 12/66)
UT	time in days since year of launch (69) an fraction of day

<u>Variable</u>	<u>Description</u>
B	magnetic field strength (reference field: GSFC 12/66)
NOS	+1, northern hemisphere -1, southern hemisphere
MLT	magnetic local time in hours and fraction of hour (reference field: central dipole)
LT	local time in hours and fraction of hour
CHAN 1	counting rate (counts per 10 sec) protons: 1.65-13.5 MeV
CHAN 2	counting rate protons: 0.25-12.5 MeV
CHAN 3	counting rate protons: 0.25-1.65 MeV
CHAN 4	counting rate protons: 0.50-1.65 MeV
CHAN 5	counting rate protons: 1.0-1.65 MeV
CHAN 6	counting rate alphas: 2.0-6.4 MeV

### Data Set

Each data set exists of twelve logical words (one sample) stored in six CDC 3400 computer words. For additional information on data conversion and packing refer to section IT-Tape.

### Record

Every seventy-nine data sets of a given invariant latitude interval are summarized in one physical record. The proceeding record label (three computer words long) designs

- latitude interval
- current record number related to the latitude interval
- number of data sets written in this record

The last record of a certain interval might contain less than seventy-nine data sets. Nevertheless the record length is defined to fourhundred and seventy-seven CDC 3400 computer words.

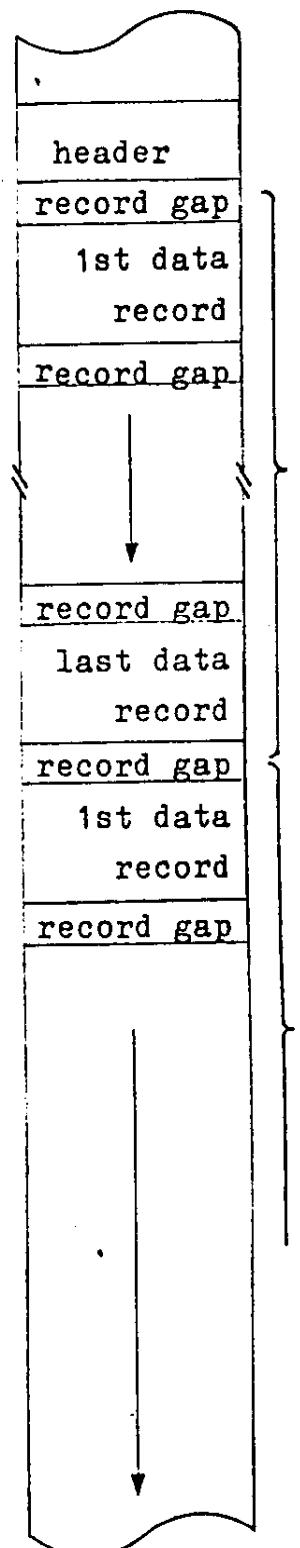
Each record is followed by the subsequent record. No marks are used to separate records belonging to different latitude intervals.

### Tape

All EI 92 proton data in IT-Format are stored on two output tapes (7 tracks, 2400' long, 1/2" wide). The tapes were generated by CDC 3400 buffered write in odd parity and 800 bpi density. Contents and format will be specified in section IT-Tape.

Tape Format

1st IT-Tape

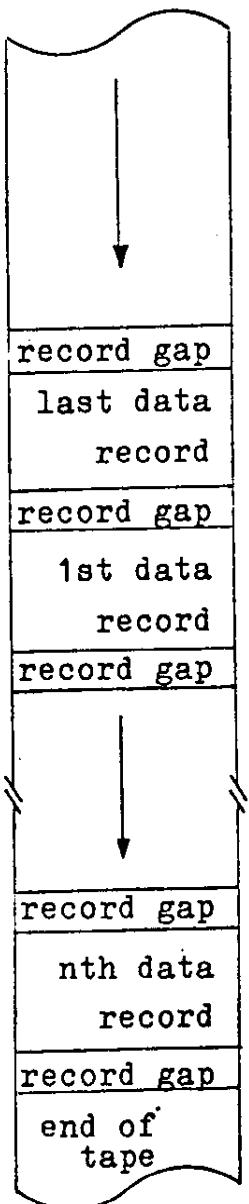


1st latitude  
interval

2nd latitude  
interval

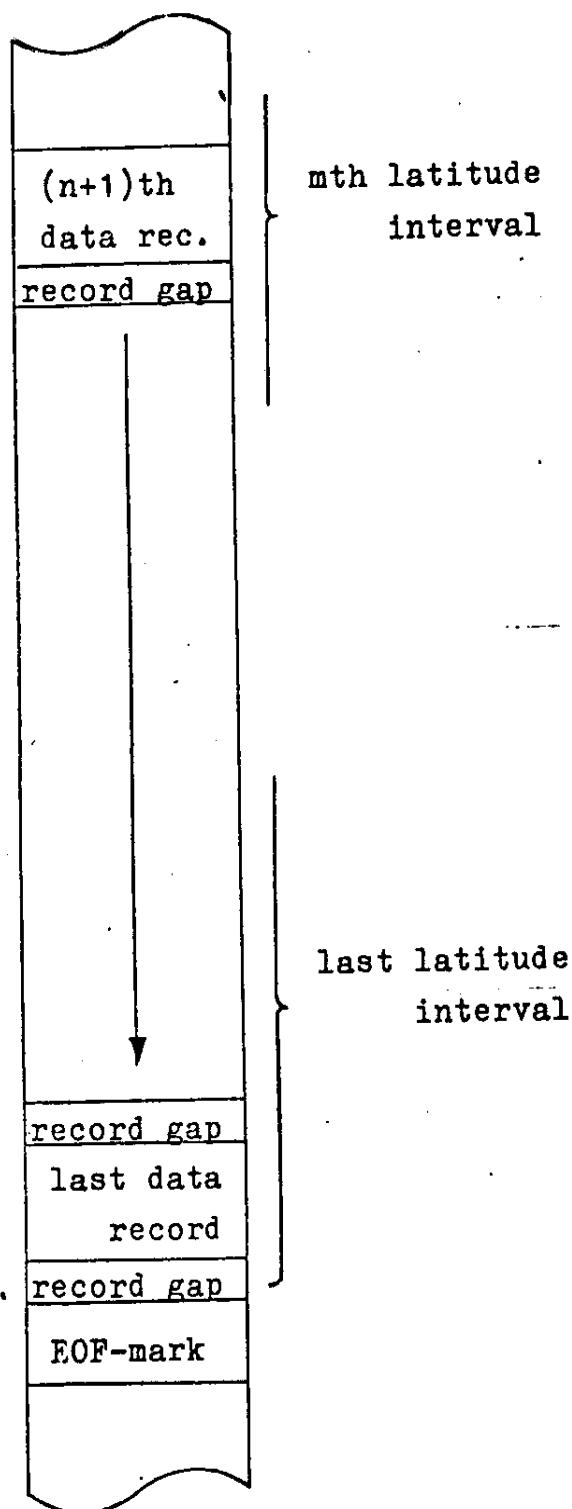
(m-1)th  
latitude  
interval

mth  
latitude  
interval



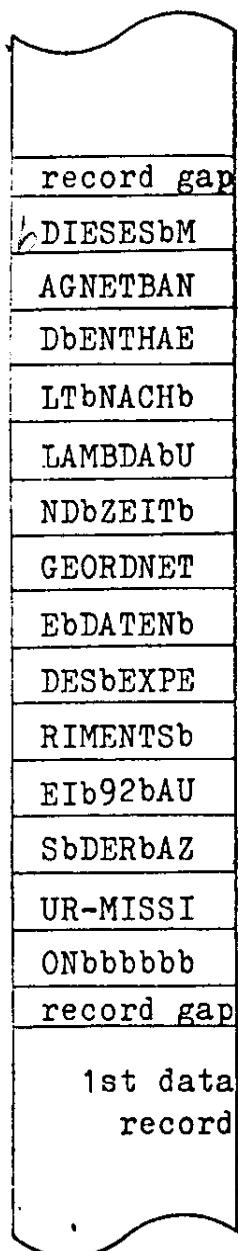
connected to  
2nd IT-Tape

2nd IT-Tape



Header

1st data tape

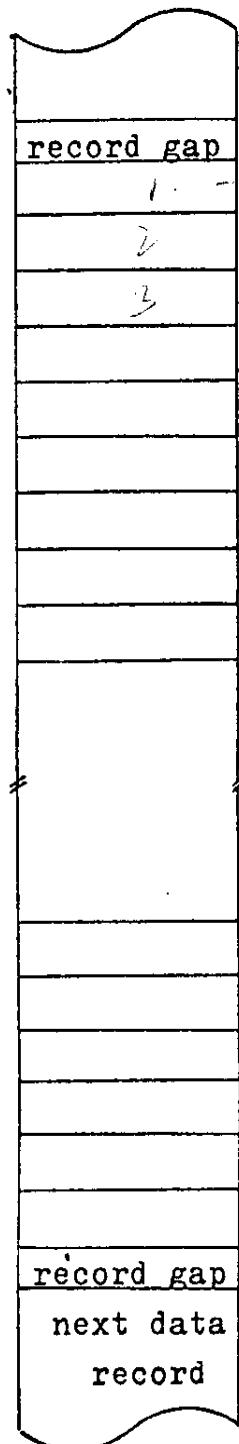


header length:

112 characters in CDC 3400  
BCD mode  
(transmitted to tape by  
binary buffered write)

(b is blank)

Record



invariant latitude, integer word  
record number  
record length N (number of data sets)

1st data set

length: 6 CDC 3400 data words

Nth data set

( $N \leq 79$ )

maximum record length:

$\leq$  477 CDC 3400 data words

## Data Set

Each data set contains 12 logical words in 6 physical data words.

Word 1:



<u>Contents</u>	<u>Format</u>
$\Lambda$ , invariant latitude (deg)	CDC 3400 floating point

### Word 2:



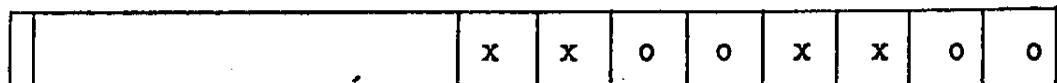
<u>Ccontents</u>	<u>Format</u>
UT, time in days since year of launch and fraction of day (e.g. Nov 8, 69 ≡ 312) ✓	CDC 3400 floating point

### Word 3:



ContentsFormat

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B, magnetic field  
strength (gauss)CDC 3400  
floating pointWord 4:sign  $10^8 \ 10^7 \ 10^6 \ 10^5 \ 10^4 \ 10^3 \ 10^2 \ 10^1$ 

MLT

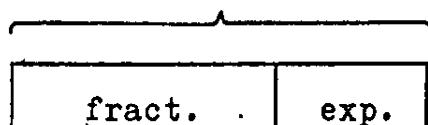
LT

ContentsFormat

NOS, MLT, LT

CDC 3400 sign and 8 decimal  
integer characters usedNOS  $\begin{cases} +1, \text{ latitude north} \\ -1, \text{ latitude south} \end{cases}$ sign bit  $\begin{cases} 0 \\ 1 \end{cases}$ 

For sign bit: 0

MLT, magnetic local time characters  $10^8 - 10^5$   
in hours and fraction of xx.oo  
hourLT, local time in hours characters  $10^4 - 10^1$   
and fraction of hour xx.ooWord 5:sign  $2^{36}$   $2^{25}$   $2^{14}$   $2^3$  $2^6 \quad 2^0 2^3 \quad 2^0$

ContentsFormat

Counting Rates  
CHAN 1, 2, 3, 4

CDC 3400      44 bits used  
integer

CHAN 1 in  
counts/10 sec

bits  $2^{46} - 2^{36}$   
rate = fract.\*  $2^{\text{exp.}}$

CHAN 2 in  
counts/10 sec

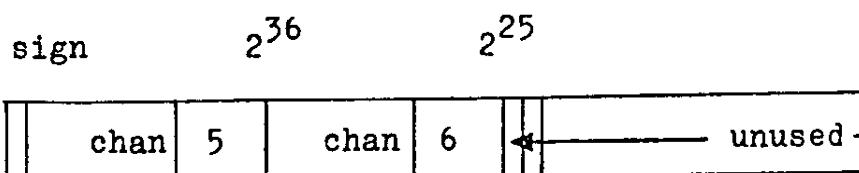
bits  $2^{35} - 2^{25}$   
rate = fract.\*  $2^{\text{exp.}}$

CHAN 3 in  
counts/10 sec

bits  $2^{24} - 2^{14}$   
rate = fract.\*  $2^{\text{exp.}}$

CHAN 4 in  
counts/10 sec

bits  $2^{13} - 2^3$   
rate = fract.\*  $2^{\text{exp.}}$

Word 6:ContentsFormat

Counting Rates  
CHAN 5, 6

CDC 3400      22 bits used  
integer

CHAN 5 in  
counts/10 sec

bits  $2^{46} - 2^{36}$   
rate = fract.\*  $2^{\text{exp.}}$

CHAN 6 in  
counts/10 sec

bits  $2^{35} - 2^{25}$   
rate = fract.\*  $2^{\text{exp.}}$

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SEITE 69-097A-03A

FORMAT IT

INBR	DDOHHMMSS	MLT	L	B	92K1	92K2	92K3	92K4	92K5	92K6	0,25	0,50	1,00	1165 ALPHA	B/B0	R	LAMB	NS				
74,83	314002604	3,32	0,54	14,61	0,537	0	0	0	0	0	0	0	0	0	0,999,999	1,21413	73,244	N				
75,22	314002614	3,29	0,46	15,36	0,339	0	0	0	0	0	0	0	0	0	0,999,999	1,21280	73,683	N				
74,96	314022644	4,29	1,52	14,85	0,324	0	0	0	0	0	0	0	0	0	0,999,999	1,23046	73,268	N				
75,43	314022654	4,27	1,45	15,80	0,326	0	0	0	0	0	0	0	0	0	0,999,999	1,22876	73,805	N				
74,58	314023524	17,36	19,20	14,14	0,434	0	0	0	0	0	0	0	0	0	0,999,999	1,11699	73,679	N				
74,67	314042704	4,52	2,41	14,30	0,310	3	18	17	3	1	1	103	14	0	14	0,999,999	1,24809	72,818	N			
75,16	314042714	4,51	2,37	15,24	0,312	1	15	15	5	1	1	73	29	0	0	0,999,999	1,24616	73,382	N			
74,54	314062714	4,32	3,17	14,07	0,300	1	9	9	4	1	1	39	22	0	0	0,999,999	1,26146	72,577	N			
75,00	314062724	4,30	3,15	14,92	0,302	2	11	6	3	1	1	22	14	0	7	0,999,999	1,25953	73,209	N			
75,46	314062734	4,27	3,12	15,86	0,304	1	11	11	3	1	1	58	14	0	0	0,999,999	1,25761	73,646	N			
75,08	314063614	18,26	20,55	15,08	0,395	552	13440	12800	7296	1264	4	40520	44407	9276	4056	22	999,999	1,15317	73,945	N		
74,74	314082754	3,42	3,36	14,43	0,300	0	0	0	0	0	0	0	0	0	0,999,999	1,26232	72,794	N				
75,12	314082804	3,39	3,34	15,16	0,301	0	0	0	0	0	0	0	0	0	0,999,999	1,26061	73,242	N				
75,50	314082814	3,35	3,31	15,94	0,303	0	0	0	0	0	0	0	0	0	0,999,999	1,25888	73,679	N				
75,47	314083644	19,43	22,11	15,89	0,380	0	0	0	0	0	0	0	0	0	0,999,999	1,16774	74,271	N				
74,99	314083654	19,39	22,02	14,92	0,382	0	0	0	0	0	0	0	0	0	0,999,999	1,16570	73,766	N				
74,51	314083704	19,35	21,52	14,01	0,383	0	0	0	0	0	0	0	0	0	0,999,999	1,16364	73,253	N				
75,27	314103704	21,27	23,52	15,47	0,365	1	6	3	2	1	1	10	5	2	22	7	0	0	999,999	1,18355	73,949	N
75,01	314103714	21,21	23,42	14,96	0,367	2	11	10	5	2	2	36	22	7	7	0	999,999	1,18155	73,675	N		
74,74	314103724	21,15	23,32	14,44	0,368	1	12	11	5	2	2	44	22	7	0	999,999	1,17951	73,394	N			
74,60	314193959	10,07	8,02	14,29	0,233	6	6	6	6	6	6	28	14	0	0	999,999	1,37189	71,953	S			
74,66	314194010	10,02	7,59	14,29	0,232	9	9	9	9	9	9	44	27	0	0	999,999	1,37286	71,943	S			
74,65	314194020	9,57	7,56	14,27	0,232	0	0	0	0	0	0	7	7	0	0	999,999	1,37378	71,922	S			
74,63	314194030	9,52	7,52	14,24	0,231	0	0	0	0	0	0	28	7	0	0	999,999	1,37470	71,896	S			
74,56	314194050	9,43	7,46	14,11	0,230	6	6	6	6	6	6	28	14	0	0	999,999	1,37189	71,953	S			
74,52	314194100	9,39	7,44	14,03	0,230	5	5	5	5	5	5	28	7	0	0	999,999	1,37651	71,800	S			
74,70	315004929	3,46	1,09	14,37	0,338	5	7	7	7	7	7	14	7	0	0	999,999	1,37743	71,742	S			
75,12	315004939	3,43	1,00	15,17	0,340	3	13	7	7	7	7	14	7	0	0	999,999	1,21115	73,585	N			
74,86	315025009	4,36	2,02	14,69	0,325	0	0	0	0	0	0	28	14	0	0	999,999	1,21115	73,585	N			
75,34	315025019	4,35	1,56	15,62	0,327	0	0	0	0	0	0	14	7	0	0	999,999	1,22862	73,170	N			
74,69	315045029	4,51	2,49	14,28	0,312	3	4	4	6	2	7	0	0	0	0	999,999	1,22688	73,724	N			
75,14	315045039	4,50	2,45	15,21	0,314	1	1	1	1	1	1	0	0	0	0	999,999	1,24520	72,822	N			
74,52	315065039	4,24	3,22	14,04	0,303	12	7	6	6	6	6	29	7	0	0	999,999	1,24326	73,389	N			
74,97	315065049	4,22	3,20	14,88	0,305	11	7	7	7	7	7	14	7	0	0	999,999	1,25495	73,117	N			
75,43	315065059	4,19	3,17	15,81	0,307	11	3	2	2	2	2	14	7	0	0	999,999	1,25306	73,649	N			
75,36	315221145	7,13	6,48	15,65	0,214	2	11	10	6	6	6	0	7	0	0	999,999	1,41178	72,521	S			
75,09	315221155	7,11	6,47	15,10	0,213	2	16	15	7	7	7	0	7	0	0	999,999	1,41260	72,189	S			
74,84	315221205	7,08	6,46	14,57	0,213	15	15	15	15	15	15	14	7	0	0	999,999	1,41341	71,893	S			
74,53	315221215	7,06	6,44	14,06	0,212	14	14	14	14	14	14	14	7	0	0	999,999	1,41420	71,512	S			
75,33	316012115	17,56	19,10	15,60	0,448	14,47	0,450	14	14	14	14	14	7	0	0	999,999	1,10619	74,557	N			
74,76	316012125	17,54	19,07	14,47	0,450	14,47	0,450	14	14	14	14	14	7	0	0	999,999	1,10380	73,966	N			
75,31	316031345	4,41	2,07	15,55	0,329	1	1	1	1	1	1	1	0	0	0	999,999	1,22472	73,700	N			

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 SATELLIT GRS 625 A1 " EXPERIMENT E1 92 "

DATUM 12.11.69

SEITE 2

FORMAT IT

INBR	DDDMHHMSS	MLT	LT	B	92K1	92K2	92K3	92K4	92K5	92K6	0,25	0,50	1,00	1,65	ALPHA	B/BD	R	LAMB	NS
75,29	316032154	17,34	19,38	15,51	0,432	1	1	1	1	1	1	0	0	0	0	999,999	1,11915	74,419	N
74,63	316032204	17,33	19,34	14,24	0,434	1	1	1	1	1	1	0	0	0	0	999,999	1,11699	73,736	N
74,70	316051354	4,48	2,56	14,37	0,315	1	3	3	3	3	3	1	1	1	1	14	0	0	0
75,20	316051404	4,47	2,52	15,32	0,317	1	3	3	3	3	3	2	2	2	2	14	0	0	0
74,93	316055904	16,55	15,39	14,80	0,342	1	2	2	2	2	2	2	2	2	2	14	0	0	0
75,43	316055914	16,54	15,37	15,81	0,340	1	2	2	2	2	2	2	2	2	2	14	0	0	0
75,48	316072254	18,55	21,26	15,90	0,397	1	3	3	3	3	3	2	2	2	2	22	0	0	0
74,91	316072304	18,52	21,18	14,75	0,398	1	2	2	2	2	2	2	2	2	2	22	0	0	0
75,23	316223554	6,58	6,46	15,38	0,210	2	2	2	2	2	2	2	2	2	2	2	0	0	0
74,68	316223614	6,53	6,44	14,32	0,208	1	3	3	3	3	3	1	1	1	1	14	0	0	0
74,74	317013624	4,08	1,30	14,44	0,342	1	2	2	2	2	2	2	2	2	2	22	0	0	0
75,20	317013634	4,06	1,22	15,33	0,344	1	2	2	2	2	2	2	2	2	2	22	0	0	0
74,54	317033654	4,47	2,24	14,08	0,328	1	2	2	2	2	2	2	2	2	2	22	0	0	0
75,05	317033704	4,46	2,18	15,02	0,330	1	2	2	2	2	2	2	2	2	2	22	0	0	0
74,53	317053714	4,45	3,03	14,05	0,317	1	2	2	2	2	2	2	2	2	2	22	0	0	0
75,03	317053724	4,43	3,00	14,99	0,319	1	2	2	2	2	2	2	2	2	2	22	0	0	0
75,20	317054544	18,05	20,34	15,35	0,414	1	2	2	2	2	2	2	2	2	2	22	0	0	0
74,55	317054554	18,03	20,27	14,09	0,415	1	2	2	2	2	2	2	2	2	2	22	0	0	0
75,42	317205603	8,10	7,01	15,85	0,215	1	2	2	2	2	2	2	2	2	2	22	0	0	0
75,25	317205613	8,07	7,00	15,44	0,214	1	2	2	2	2	2	2	2	2	2	22	0	0	0
75,06	317205623	8,04	6,58	15,04	0,214	1	2	2	2	2	2	2	2	2	2	22	0	0	0
74,85	317205633	8,00	6,57	14,64	0,213	1	2	2	2	2	2	2	2	2	2	22	0	0	0
74,64	317205643	7,57	6,55	14,26	0,212	1	2	2	2	2	2	2	2	2	2	22	0	0	0
74,96	318015953	4,17	1,37	14,85	0,345	1	2	2	2	2	2	2	2	2	2	22	0	0	0
75,43	318020003	4,15	1,30	15,81	0,347	1	2	2	2	2	2	2	2	2	2	22	0	0	0
75,20	31802003	17,42	19,18	15,33	0,453	1	2	2	2	2	2	2	2	2	2	22	0	0	0
74,57	318020813	17,40	19,14	14,12	0,454	1	2	2	2	2	2	2	2	2	2	22	0	0	0
74,85	318040023	4,50	2,29	14,64	0,331	1	2	2	2	2	2	2	2	2	2	22	0	0	0
75,37	318040033	4,49	2,24	15,68	0,333	1	2	2	2	2	2	2	2	2	2	22	0	0	0
74,92	318060043	4,38	3,07	14,77	0,321	1	2	2	2	2	2	2	2	2	2	22	0	0	0
74,65	318080103	3,56	3,33	14,26	0,317	1	2	2	2	2	2	2	2	2	2	22	0	0	0
75,07	318080113	3,52	3,31	15,06	0,319	1	2	2	2	2	2	2	2	2	2	22	0	0	0
75,49	318080123	3,48	3,29	15,92	0,321	1	2	2	2	2	2	2	2	2	2	22	0	0	0
74,67	318080953	19,20	21,41	14,31	0,403	1	2	2	2	2	2	2	2	2	2	22	0	0	0
74,66	31902229	3,29	0,52	14,29	0,359	1	2	2	2	2	2	2	2	2	2	22	0	0	0
75,06	31902239	3,26	0,43	15,06	0,360	1	2	2	2	2	2	2	2	2	2	22	0	0	0
75,47	319002249	3,22	0,34	15,66	0,362	1	2	2	2	2	2	2	2	2	2	22	0	0	0
74,64	319022309	4,27	1,52	14,20	0,345	1	2	2	2	2	2	2	2	2	2	22	0	0	0
75,10	319022319	4,26	1,45	15,13	0,347	1	2	2	2	2	2	2	2	2	2	22	0	0	0
74,74	319023129	17,36	19,21	14,37	0,454	1	2	2	2	2	2	2	2	2	2	22	0	0	0

UNIVERSITAET KIEL \* INSTITUT FUER REINE UND ANGEWANDTE KERNPHYSIK \* 543 1 48 49

SATELLIT GRS 625 A1 \* EXPERIMENT E1 92 \* GMT

FORMAT IT

INR	DDHHMMSS	MLT	L	B	92K1	92K2	92K3	92K4	92K5	92K6	0,25	0,50	1,00	1,65	ALPHA	B/B0	R	LAMB	NS	
54,51	543014849	5:27	4,21	2,97	0,310	1	1	1	1	1	1,76	1,95	0	0	0	25,966	1,18939	50,718	N	
54,97	543014859	5:27	4,19	3,03	0,312	1	1	1	1	1	2,94	2,50	7	0	0	27,971	1,18863	51,256	N	
55,42	543014909	5:27	4,18	3,10	0,314	1	1	1	1	1	3,75	3,31	51	0	0	30,160	1,18785	51,791	N	
55,35	543031159	5:51	6,23	3,09	0,430	148	83968	82944	33280	1712	7	365+3	232+3	12552	1082	44	12,293	1,55977	44,751	S
55,12	543031209	5:51	6,22	3,06	0,429	174	84992	82944	34504	1904	7	358+3	236+3	13965	1273	44	11,838	1,55964	44,420	S
54,88	543031219	5:51	6,22	3,02	0,429	190	84992	82944	34304	2000	10	358+3	237+3	14650	1391	66	11,389	1,55943	44,077	S
54,64	543031229	5:51	6,21	2,99	0,428	246	83968	82944	35328	2016	12	350+3	245+3	14753	1803	80	10,963	1,55919	43,735	S
54,85	543034949	5:33	4,27	3,02	0,291	7	296	284	214	34	1	535	1325	242	44	0	25,612	1,21459	50,618	N
55,35	543034959	5:33	4,26	3,09	0,293	9	444	436	328	43	1	793	2098	309	58	0	27,826	1,21357	51,218	N
55,46	543051119	5:46	6,31	3,11	0,118	176	107+3	105+3	41984	2144	10	467+3	293+3	15710	1288	66	11,372	1,60649	44,063	S
55,26	543051129	5:46	6,31	3,08	0,117	204	108+3	107+3	43008	2368	9	474+3	299+3	17367	1494	58	10,982	1,60660	43,750	S
55,04	543051139	5:46	6,30	3,05	0,117	232	109+3	107+3	44032	2336	19	467+3	306+3	17131	1700	58	10,594	1,60661	43,425	S
54,84	543051149	5:46	6,29	3,02	0,116	244	110+3	108+3	45056	2496	11	467+3	313+3	16294	1788	58	10,244	1,60669	43,118	S
54,64	543051159	5:46	6,29	2,99	0,116	284	110+3	108+3	45568	2560	9	463+3	316+3	18780	2083	58	9,907	1,60674	42,809	S
54,70	543054959	5:24	4,38	2,99	0,274	23	1552	1552	1916	115	1	394	6633	839	161	0	23,591	1,23664	50,011	N
55,17	543055009	5:24	4,37	3,06	0,276	19	1984	1984	1248	119	1	5418	8311	868	132	0	25,530	1,23505	50,595	N
54,79	543063509	17:21	16,53	3,01	0,311	3	188	188	69	13	1	876	412	88	14	0	27,180	1,18891	51,050	S
55,31	543063519	17:20	16,53	3,09	0,311	6	384	380	176	45	1	1504	964	323	36	0	29,343	1,19108	51,597	S
54,89	543074929	5:03	4,51	3,02	0,263	26	1392	1376	1232	198	1	1060	7612	1450	184	0	23,358	1,25247	49,937	N
55,31	543074939	5:03	4,50	3,09	0,266	19	1520	1504	1360	174	1	1060	8731	1273	132	0	25,101	1,25046	50,470	N
55,46	543090829	6:13	7,02	3,11	0,121	204	92160	91136	37988	2048	8	392+3	263+3	15018	1494	51	11,673	1,59371	44,295	S
55,24	543090839	6:13	7,00	3,08	0,120	200	94260	92160	39424	2176	8	388+3	274+3	15960	1465	51	11,228	1,59439	43,950	S
55,04	543090849	6:12	6,59	3,04	0,120	240	93184	92160	40448	2368	12	380+3	280+3	17344	1759	80	10,801	1,59502	43,600	S
54,79	543090859	6:12	6,58	3,04	0,119	276	93184	92160	40960	2400	9	365+3	283+3	17609	2024	51	10,395	1,59566	43,251	S
54,57	543090909	6:11	6,57	2,98	0,118	352	92160	91136	41472	2464	7	365+3	287+3	18073	2584	58	10,011	1,59626	42,906	S
55,43	543110839	6:42	7,12	3,11	0,129	158	81920	80896	29952	1664	1	375+3	208+3	12243	1155	0	12,437	1,56069	44,853	S
55,21	543110849	6:41	7,11	3,07	0,129	170	83968	82944	31232	1696	12	380+3	217+3	12397	1244	80	11,977	1,56118	44,523	S
54,99	543110859	6:40	7,10	3,04	0,128	198	83968	82944	32000	1760	22	375+3	222+3	12927	1450	36	11,537	1,56164	44,191	S
54,76	543110909	6:40	7,09	3,00	0,128	222	83968	82944	32768	1888	6	369+3	227+3	13855	1627	36	11,113	1,56207	43,857	S
54,54	543110919	6:39	7,07	2,97	0,127	250	84992	83958	34304	2048	7	365+3	237+3	15025	1833	44	10,710	1,56249	43,524	S
55,42	543131050	7:10	7,09	3,11	0,140	120	79872	78848	29184	1344	8	365+3	204+3	9835	876	51	13,413	1,52512	45,505	S
55,23	543131100	7:09	7,07	3,02	0,139	132	7680	75776	115	1472	7	557+3	201+3	10785	964	44	12,982	1,52523	45,224	S
55,03	543131110	7:08	7,06	3,04	0,139	142	74752	73728	29696	1408	6	324+3	208+3	10321	1038	36	12,569	1,52534	44,945	S
54,84	543131120	7:06	7,05	3,02	0,138	168	74752	73728	30208	1520	5	320+3	211+3	11153	1229	29	12,174	1,52544	44,666	S
54,60	543144330	15:46	16,45	2,98	0,192	103	43008	43008	13952	784	5	213+3	96943	5735	750	29	16,277	1,37987	47,120	S
54,88	543144340	15:44	16,44	3,02	0,191	182	49664	49152	14464	800	2	255+3	100+3	5874	596	7	16,945	1,38184	47,446	S
55,16	543144350	15:42	16,43	3,06	0,191	59	57856	57344	15872	840	4	305+3	110+3	6154	426	22	17,646	1,38377	47,771	S
55,43	543144400	15:41	16,42	3,11	0,191	61	60416	59904	16640	808	2	318+3	116+3	5933	441	7	18,383	1,38568	48,097	S
55,36	543181840	20:23	19,02	3,10	0,414	1	2	1	1	1	1	0	0	0	7	0	39,423	1,08892	53,623	N
54,83	543181850	20:20	18,59	3,01	0,413	2	2	1	1	1	1	0	0	0	7	0	36,256	1,08825	53,062	N
54,59	543185239	15:49	16,02	2,98	0,175	119	50688	50688	20224	1072	4	224+3	140+3	7862	868	22	14,840	1,41900	46,359	S
55,13	543185259	15:46	15,58	3,02	0,175	115	56320	55808	20736	1024	5	258+3	145+3	7501	839	29	15,488	1,41942	46,713	S
55,40	543185309	15:44	15,56	3,10	0,176	94	62976	62464	21504	992	3	301+3	151+3	7281	684	14	16,166	1,41983	47,065	S
55,16	543202140	19,59	18,47	3,06	0,414	1	2	1	1	1	1	0	0	0	0	0	36,256	1,08825	47,417	S
						1	2	1	1	1	1	0	0	0	0	0	38,200	1,08855	53,413	N

UNIVERSITAET KIEL - INSTITUT FUER REINE UND ANGEWANDTE KERNPHYSIK - 543 20 54 50      DATUM 27. 6.70

SEITE

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FORMAT IT

INBR	DDHHMMSS	MLT	LT	L	B	92K1	92K2	92K3	92K4	92K5	92K6	0,25	0,50	1,00	1,65	ALPHA	B/B0	R	LAMB	NS
54,61	543205450	16,22	15,57	2,98	0,189	121	43008	42496	15360	880	4	199+3	106+3	6449	883	22	16,053	1,38643	47,007	S
54,95	543205500	16,21	15,55	3,03	0,189	90	51200	51200	15872	816	6	260+3	110+3	5963	655	36	16,935	1,38713	47,441	S
55,29	543205510	16,20	15,53	3,08	0,190	78	59904	59904	16896	824	1	316+3	118+3	6058	566	0	17,870	1,38781	47,872	S
54,78	543225537	16,57	16,06	3,01	0,209	86	34304	34304	13312	656	2	154+3	93173	4814	625	7	18,260	1,34383	48,044	S
55,16	543225547	16,56	16,04	3,06	0,210	66	43520	43008	14976	624	1	206+3	105+3	4586	478	0	19,352	1,34506	48,500	S